In the Claims

Please amend the claims as follows:

1-4. (Canceled).

5. (Currently Amended) ~~A~~ An *in vitro* method of altering the amount of a DNA repair polypeptide in a cell, comprising:

(a) ~~introducing into~~ providing a transformed host cell comprising an isolated nucleic acid molecule comprising a nucleic acid segment encoding a vertebrate DNA repair polypeptide having a molecular weight of about 95000 Da as determined by SDS-PAGE, or a biologically active fragment thereof ~~having DNA repair activity~~ which binds double strand breaks in DNA or forms a complex with Mre11/Rad50, operably linked to a promoter functional in the host cell, ~~so as to yield a transformed host cell~~, wherein the DNA repair polypeptide is associated with the ~~MreII/Rad50~~ Mre11/Rad50 complex; and

(b) expressing the nucleic acid molecule in the transformed host cell as recombinant DNA repair polypeptide, wherein the amount of the recombinant polypeptide produced by the transformed cell is different than the amount of the DNA repair polypeptide produced by a corresponding untransformed cell.

6. (Currently Amended) ~~A~~ An *in vitro* method of altering the amount of a DNA repair polypeptide in a cell, comprising:

(a) ~~introducing into~~ providing a transformed host cell comprising a DNA segment comprising the complement of at least a portion of a nucleic acid molecule comprising a nucleic acid segment encoding a vertebrate DNA repair polypeptide having a molecular weight of about 95000 Da as determined by SDS-PAGE, or a biologically active fragment thereof ~~having DNA repair activity~~ which binds double strand breaks in DNA or forms a complex with Mre11/Rad50, operably linked to a promoter functional in the host cell, ~~so as to yield a transformed host~~

~~cell,~~ wherein the DNA repair polypeptide is associated with the ~~Mrell/Rad50~~ Mre11/Rad50 complex; and

(b) expressing the DNA segment in the transformed host cell as antisense RNA so as to decrease the amount of the DNA repair polypeptide in the transformed cell.

7-19. (Canceled).

20. (Previously Presented) The method of claim 5 or 6 wherein the nucleic acid segment comprises SEQ ID NO:1.

21. (Previously Presented) The method of claim 5 or 6 wherein the nucleic acid segment encodes SEQ ID NO:2.

22. (Previously Presented) The method of claim 5 or 6 wherein the host cell is a mammalian host cell.

23-25. (Canceled).

26. (Currently Amended) ~~A~~ An isolated transformed host cell ~~prepared by the method of claim 5 or 6~~ comprising an isolated nucleic acid molecule comprising a nucleic acid segment encoding a vertebrate DNA repair polypeptide having a molecular weight of about 95000 Da as determined by SDS-PAGE, a biologically active fragment thereof which binds double strand breaks in DNA or forms a complex with Mre11/Rad50, or the complement of at least a portion of the nucleic acid segment, operably linked to a promoter functional in the host cell, wherein the DNA repair polypeptide is associated with the Mre11/Rad50 complex.

27. (Previously Presented) The transformed host cell of claim 26 which is a mammalian cell.

28. (New) The method of claim 5 or 6 wherein the nucleic acid segment encodes a vertebrate DNA repair polypeptide having a molecular weight of about 95000 Da as determined by SDS-PAGE.